

# **New Hampshire Department of Environmental Services**

## **AQUATIC RESOURCE MITIGATION FUND 2014 Grant Round**

### **Site Selection Committee Final Report *November 2014***

The New Hampshire Department of Environmental Services (hereinafter "NHDES") Aquatic Resource Mitigation (hereinafter "ARM") Fund was established by law in August, 2006 as a mitigation option for certain projects not able to provide other forms of mitigation. The ARM Fund Site Selection Committee (hereinafter "Committee") was set up to provide a mechanism for reviewing, evaluating, and selecting wetland restoration, upland preservation, wetland creation, and other aquatic resource improvement proposals. According to the law, the projects determined to be appropriate for receipt of ARM Fund monies are subject to approval by the US Army Corps of Engineers (hereinafter "Corps") and the NH Wetlands Council (hereinafter "Council").

The Committee is charged with identifying proposals to be funded by selecting high priority projects that most effectively compensate for the loss of functions and values from the projects that paid into the Fund. The Council is charged with approving disbursements of the ARM Fund based on recommendations provided by the Committee per RSA 482-A:29. The program is also authorized by the New Hampshire ARM Fund Final In-Lieu Fee Program Instrument, May 2012 pursuant to 33 CFR Parts 325 and 332 known as the federal "Mitigation Rule".

NHDES announced the availability of funds in nine service areas in March, 2014. The amount of funding available was as follows:

- **\$135,000.00** – Pemigewasset – Winnepesaukee Rivers (**headwaters in Lincoln, to Franklin and Sandwich down to Alton and Gilmanton**)
- **\$336,000.00** – Salmon Falls to Piscataqua Rivers (**headwaters in Wakefield, from the west in Deerfield and to the south down to Seabrook and the MA border**).
- **\$1,027,000.00** – Merrimack River (**headwaters in Canterbury down to the MA border**)
- **\$425,000.00** – Lower Connecticut River (**headwaters in Canaan and Lebanon down to MA border**)
- **\$52,000.00** – Middle Connecticut River (**headwaters in Dalton and Whitefield down to Hanover**)

Each applicant submitted a pre-proposal summarizing their project. The pre-proposals were reviewed by NHDES and the Committee and feedback was provided. Full application submittals were received August 18, 2014. Four of the service areas lacked funds to distribute which included the Androscoggin River, Saco River, Contoocook River and Upper Connecticut River service areas. There were no applications submitted for the Middle Connecticut River service area. The funds in that service area will be advertised in 2015. Table 1 provides a summary for the service areas as to functions and values lost through the projects that provided the funds, total funds available, and a brief description of the applications considered by the Committee.

**Table 1. 2014 ARM Fund Grant Applications.**

<b>Service Area:</b> Pemigewasset - Winnepesaukee Rivers <b>Functions/Values Lost:</b> Floodflow alteration, nutrient removal, sediment retention, bank Impacts <b>ARM Funds Available:</b> \$135,000			
<b>Applicant/Project Name:</b> Lakes Region Conservation Trust/ Lake Wicwas Conservation Project	<b>Town:</b> Meredith	<b>ARM Funds Requested:</b> \$64,236	<b>Matching Funds:</b> \$469,554
<b>Description:</b> The Lakes Region Conservation Trust (LRCT) and Lake Wicwas Association propose to protect four separate parcels in the northeast part of the lake. Lake Wicwas is the fourth largest lake in Meredith and provides critical inflow waters to Lake Winnepesaukee. The parcels contain a total of 27.44 acres of land and one mile of shoreline. The properties contain shoreline along a strip of critical marsh habitat with two of the parcels currently supporting the only nesting loon pair on Lake Wicwas. One of the parcels is adjacent to an existing LRCT preserve. The third parcel includes shoreline that surrounds the largest bordering marsh (12.5 acres) and the fourth parcel is an island. There are a potential of four vernal pools on the parcels. The conservation proposal involves a donation of three of the parcels to LRCT and the fourth property will entail a donated easement to the LRCT. No restoration opportunities exist on the parcels.			
<b>Service Area:</b> Salmon Falls-Piscataqua Rivers <b>Functions/Values Lost:</b> Wildlife habitat, sediment/nutrient retention; conversion in buffer to vernal pools and streams, stormwater detention <b>ARM Funds Available:</b> \$336,000			
<b>Applicant/Project Name:</b> Rye Conservation Commission/Berry's Brook Wetland Conservation Project	<b>Town:</b> Rye	<b>ARM Funds Requested:</b> \$125,000	<b>Matching Funds:</b> \$1,135,000
<b>Description:</b> The Rye Conservation Commission proposes to purchase and permanently protect 73+/- acres of the former Rand Lumber Yard property located on Wallis Road in Rye. This parcel will contribute to existing protected lands, as it located within a large contiguous block of open lands. A significant wildlife corridor extends easterly toward the Bellyhack Bog and tidal estuary that is within a mile. The wetlands found on site are mainly forested with several potential vernal pools. The upland buffers will protect Berry's Brook and designated prime wetlands in Portsmouth. The Natural Heritage Bureau datacheck results indicated that the Needham's Skimmer and Spotted Turtle are all located in close proximity. The proposal does not include restoration.			
<b>Applicant/Project Name:</b> Town of Exeter/Exeter Great Dam Removal	<b>Town:</b> Exeter	<b>ARM Funds Requested:</b> \$100,000	<b>Matching Funds:</b> \$511,750
<b>Description:</b> The Town of Exeter proposes to remove the Great Dam in downtown Exeter. The project has the opportunity to benefit the diadromous fish populations in the Exeter River and the wider Great Bay Estuary, enhance the natural and human ecosystem by improving water quality, and reduce Exeter's vulnerability to the growing risk of flooding. The removal project would restore approximately 15 miles of the Exeter River and its tributaries to a free-flowing condition, eliminating a barrier to migrating anadromous fish and improving water quality. The proposed project involves eliminating the following structures from the river: the reinforced concrete run-of-river dam consisting of a spillway, a fish ladder, and a small lower dam (or weir) structure; a low-level outlet; and a penstock. The project also includes reshaping the river channel within the footprint of the existing dam and the area immediately upstream and downstream using a natural channel design approach based on sound fluvial geomorphic principles. The location is within the historic community center that is under Town ownership.			
<b>Applicant/Project Name:</b> South East Land Trust of NH/Spruce Swamp-Kelliher Forest	<b>Town:</b> Brentwood and Fremont	<b>ARM Funds Requested:</b> \$15,000	<b>Matching Funds:</b> \$64,841
<b>Description:</b> The Southeast Land Trust of NH (SELTNH) is currently in negotiations with the owner of a 32.18 acre property to permanently protect approximately 8 acres of wetland and 24.18 acres of upland buffer in the regionally significant Spruce Swamp. SELTNH proposes to place a Natural Resources Conservation Service (NRCS) Wetland Reserve Easement (WRE) on the entire property. Funding for restoration opportunities is not part of this proposal but may occur through the WRE program. The Garrison property is located entirely within the Spruce Swamp Area which the property and its surrounding forest are one of the few wilderness areas remaining in southern New Hampshire. The Swamp is an 824 acre fen nestled in a 1,700+ acre unfragmented forest. The SELTNH will acquire the property with NRCS holding the easement. No funds are requested for restoration activities.			

<b>Applicant/Project Name:</b> Great Bay Trout Unlimited/Thompson Brook Fish Passage Project	<b>Town:</b> Greenland	<b>ARM Funds Requested:</b> \$130,000	<b>Matching Funds:</b> \$165,605
<b>Description:</b> The Trout Unlimited Great Bay Chapter proposes the replacement of an undersized culvert with a precast concrete bridge structure with open bottom design that will restore full stream connectivity of Thompson Brook. The project will allow stream bed restoration and restore fish passage on 1.17 miles of Thompson Brook, a lower tributary of the Winnicut River. Successful completion of the project will provide spawning and rearing habitat, not only for brook trout but for diadromous species of concern including river herring (both blueback and alewife), American eel and sea lamprey identified in the NH Wildlife Action Plan. This project successfully applied for and received ARM funding in 2012. The loss of federal funding opportunities in 2013 delayed the project so the applicant is resubmitting the application with funding assistance being provided by NH Department of Transportation for construction.			
<b>Service Area:</b> Merrimack River <b>Functions/Values Lost:</b> Wildlife habitat, floodflow alteration, nutrient removal, sediment retention <b>ARM Funds Available:</b> \$1,027,000			
<b>Applicant/Project Name:</b> Bear-Paw Regional Greenways/Hinman Pond II	<b>Town:</b> Hooksett	<b>ARM Funds Requested:</b> \$75,000	<b>Matching Funds:</b> \$368,300
<b>Description:</b> This proposal includes the acquisition of six (6) parcels owned by Manchester Sand and Gravel for the conservation of 218 acres of land in Hooksett. The project will combine Bear-Paw ownership with a conservation easement held by the New Hampshire Fish and Game Department. More than 12,000 acres of this unfragmented area have already been protected in this area. The entire 218-acre property lies within a conservation focus area identified in the 2010 NH Wildlife Action Plan (WAP) map that is more than 18,000 acres in size. The properties contain 21 wetland complexes totaling 25 acres. They range in size from 0.02 acre vernal pools to a ten acre beaver flowage. The majority of the wetland complexes are associated with depression systems and forested drainage ways. Nine vernal pools were identified throughout the site; however, NHFG has identified other potential vernal pools that may be productive in wetter years. There are no restoration opportunities on the parcels.			
<b>Applicant/Project Name:</b> Lakes Region Conservation Trust/Guinea Ridge Road Project	<b>Town:</b> Gilmanton	<b>ARM Funds Requested:</b> \$197,707	<b>Matching Funds:</b> \$23,703
<b>Description:</b> This project proposes to permanently protect approximately 86 acres of land on one parcel of land located on Guinea Ridge Road in Gilmanton. The parcel is located within the focus area of the Belknap Range Conservation Coalition (BRCC). The proposal is to protect at least 21 acres of wetlands and 65 acres of upland along a significant wetland and perennial stream resource located in the BRCC Focus Area. Approximately 3,600 linear feet of perennial stream buffers would be protected as well as upland buffers along the stream and complex of wetlands. The parcel contributes to connections between lands that are not protected and protects over-land connections between a wetland that is part of a large system that covers 91.6 acres and includes a perennial stream that is one of the headwater tributaries to the Suncook River and one 10-acre upland island. No restoration opportunities are proposed at this time.			
<b>Applicant/Project Name:</b> Society for the Protection of NH Forests/Shost Conservation Project	<b>Town:</b> Goffstown	<b>ARM Funds Requested:</b> \$150,000	<b>Matching Funds:</b> \$150,000
<b>Description:</b> The goal of the Shost Project is to permanently protect an undeveloped 177-acre property through the purchase of a conservation easement. The Society for the Protection of NH Forests is working in partnership with the Goffstown Conservation Commission to protect important wetland and stream buffers, vernal pools, and approximately 16.9 acres of active open fields for hay production and wildlife habitat, and about 147 acres of managed, working forests. The property includes one large, 22-acre open wetland complex that was designated as prime in 2005, several smaller forested wetlands, at least three vernal pools, and an unnamed perennial stream which drains south to the Piscataquog River and then to the Merrimack River. The Shost property has 1,275 feet of frontage along Snook Road and could easily be subdivided. No restoration opportunities are proposed at this time.			

<b>Service Area:</b> Lower Connecticut River <b>Functions/Values Lost:</b> Fish habitat, shoreline stabilization <b>ARM Funds Available:</b> \$425,000			
<b>Applicant/Project Name:</b> Trout Unlimited/Andorra Pond Restoration	<b>Town:</b> Stoddard	<b>ARM Funds Requested:</b> \$40,000	<b>Matching Funds:</b> \$60,000
<b>Description:</b> Trout Unlimited (TU) is seeking to re-establish full aquatic connectivity on Robinson Brook, a tributary of the Otter River, the Ashuelot River and eventually the Connecticut River system in southwest New Hampshire. This restoration project site is located on the conserved, 12,000 acre Andorra Forest in Stoddard, NH. The upper section of Robinson Brook contains a healthy wild brook trout population and funding is sought to restore both up and downstream connectivity for aquatic organisms by installing a by-pass channel and at the same time retaining an excellent wildlife and recreation pond; and create a safe and hydraulically compatible road crossing structure reducing the risk of stream channel erosion and hazardous geomorphic degradation during extreme storm events. The proposed channel restoration includes building a stream channel designed to handle the outflow from the 100 year event. The goal is to reduce a significant amount of in-stream channel erosion by allowing the water to pass over a channel design designed to eliminate unnecessary erosion to downstream banks.			
<b>Applicant/Project Name:</b> Cheshire County Conservation District/Falls Brook Restoration	<b>Town:</b> Swanzey	<b>ARM Funds Requested:</b> \$115,000	<b>Matching Funds:</b> \$60,280
<b>Description:</b> Cheshire County Conservation District with assistance from Trout Unlimited seeks to improve aquatic organism passage, particularly for brook trout, in the Falls Brook culvert located on Hale Hill Road which is two and one quarter miles upstream of the confluence with the Ashuelot River. Falls Brook sub-watershed was identified as the second highest priority sub-watershed due to the amount of high quality cold water headwaters habitat throughout this stream network. The majority of Falls Brook consists of excellent brook trout thermal refugia and spawning habitat. The anticipated restoration will replace an undersized culvert, potentially hazardous to community infrastructure and stream geomorphology during extreme storm events, will be removed whereby protecting the long term viability of local wetlands. The new structure will be a steel stringer bridge design allowing for full passage of all organisms as well as the stream flows related to the one hundred year storm event.			
<b>Applicant/Project Name:</b> Monadnock Conservancy/West Hill – California Brook	<b>Town:</b> Keene, Swanzey, Chesterfield	<b>ARM Funds Requested:</b> \$140,000	<b>Matching Funds:</b> \$236,900
<b>Description:</b> The Monadnock Conservancy seeks the acquisition of two conservation easements on the 552-acre West Hill Property in Keene, Swanzey & Chesterfield. These easements will protect: 25.8 acres of wetland; 526.2 acres of upland; approximately 16,850 feet of streams; 13 potential vernal pools; and 3 known vernal pools. The project includes some of the acreage subject to forever wild restrictions as part of the landowner negotiations. The conservation easement on the larger tract will allow for forest management and include a 100 foot riparian buffer in order to protect the aquatic resources. The West Hill property consists of six wetlands that provide shoreline stabilization for streams and ponds, four perennial streams associated with the wetlands (including a beaver pond) that provide fish and aquatic habitat, with all of these streams flowing into the Ashuelot River. No restoration opportunities exist on the property.			

The members of the Site Selection Committee, representatives from the Army Corps of Engineers, US Environmental Protection Agency, Natural Resource Conservation Service and NHDES staff visited the sites on September 29, October 9 and October 21. On October 29, 2014 the Committee and federal agency representatives convened to evaluate and rank the applications and determined funding amounts for the projects. The findings of the Committee's decisions and funding amounts are noted below. Location maps of the parcels are included in Appendix A.



**ARM FUND SITE SELECTION COMMITTEE**  
**RECOMMENDATIONS FOR FUNDING**

**Pemigewasset-Winnepesaukee River Service Area:**

1. The Committee recommends providing \$64,236 to the Lakes Region Conservation Trust (“LRCT”) and Lake Wicwas Association to protect four separate parcels in the northeast part of the lake which includes the largest bordering marsh system on the lake. Lake Wicwas is the fourth largest lake in Meredith and provides critical inflow waters to Lake Winnepesaukee. The parcels to be protected contain a total of 27.44 acres of land and one mile of shoreline. Although the parcels are not entirely contiguous, they contain shoreline along a strip of critical marsh habitat with two of the parcels currently supporting the only nesting loon pair on Lake Wicwas which is adjacent to an existing LRCT preserve. The third parcel includes shoreline that surrounds the largest bordering marsh (12.5 acres) and the fourth parcel is an island. There are a potential of four vernal pools on the parcels. The conservation proposal involves a donation of three of the parcels to LRCT, and the fourth property will entail a donated easement to the LRCT. ARM funds are requested for costs associated with the conservation transaction and stewardship expenses.

The remaining funds for this service area will be advertised in the 2015 grant round.

**Salmon Falls to Piscataqua River Service Area:**

1. The Committee recommends a partial award of \$121,000 to the Rye Conservation Commission to purchase and permanently protect 73+/- acres of the former Rand Lumber Yard property located on Wallis Road in Rye, NH. The ecological significance of this area within Berry’s Brook Watershed has been well documented in local, regional, and statewide conservation documents. A previously developed portion of the parcel is now in the process of being redeveloped into a Retirement Community Development. In addition, the remaining portion of land (subject property) has been preliminarily reviewed for a 16-lot residential subdivision, adding to the importance of its permanent conservation. If protected, this parcel will contribute to existing protected lands, as it located within a large contiguous block of open lands. This significant wildlife corridor extends easterly toward the Bellyhack Bog and tidal estuary that is within a mile. The wetlands found on site are comprised of forested wetlands, potential vernal pools, with additional upland buffers that protect Berry’s Brook and designated prime wetlands in Portsmouth. Partner capacity is strong with coordination and cooperation from a variety of natural resource entities that is anticipated to include: the Natural Resources Conservation Service (“NRCS”); Rockingham County Conservation District; NH State Conservation Committee; North American Wetlands Conservation Act; local Schools; and the Town of Rye Conservation Commission. NH Natural Heritage Bureau datacheck results indicated that the Needham’s Skimmer and Swamp Darner and Spotted Turtle are all located in close proximity.
2. The Exeter Great Dam removal project has been recommended for \$100,000 of funding to assist the Town of Exeter in the overall stream restoration project. The dam removal project seeks to accomplish the following: benefit the diadromous fish populations in the Exeter River and the wider Great Bay Estuary, enhance the natural and human ecosystem by improving water quality, restore the natural hydrology processes in the area, and reduce Exeter’s vulnerability to the growing risk of flooding. The removal project will restore approximately 15 miles of the Exeter River and its tributaries to a free-flowing condition, eliminating a barrier to migrating anadromous fish and improving water quality. This dam is the lowest dam on a major tributary to the Great Bay, at the tidal/freshwater boundary, and would therefore greatly enhance anadromous fish habitat for a number of species, including alewife, blueback herring, rainbow smelt, and the American eel. By eliminating the Great Dam, diadromous fish can access approximately 13 miles of spawning and nursery habitat

on the Exeter River, as well as over 2 miles on Little River. The removal of the Great Dam was approved by the voters of the Town of Exeter in March, 2014 as a result of extensive public discussion. The overall project will result in the reshaping the river channel within the footprint of the existing dam and in the immediate upstream and downstream areas using a natural channel design approach based on sound fluvial geomorphic principles.

3. The Committee recommends providing \$15,000 to the Southeast Land Trust of New Hampshire (“SELTNH”) to purchase the 32.18 acre “Garrison” property to be permanently protected through a conservation easement. Approximately 8 acres of wetland and 24.18 acres of upland buffer in the regionally significant Spruce Swamp will be protected. SELTNH proposes to place a NRCS, Wetland Reserve Easement (“WRE”) on the entire property. In addition to the easement restrictions, the WRE program provides assistance for restoration plans to be developed in conjunction with the NRCS and the WRE program. The Garrison property is located entirely within the Spruce Swamp Core Focus Area as designated by the Land Conservation Plan for NH’s Coastal Watersheds. Spruce Swamp and its surrounding forest are one of the few wilderness areas remaining in southern New Hampshire. The Swamp is an 824 acre fen nestled in a 1,700+ acre unfragmented forest with documented vernal pools. This forest and wetland combination is ranked as the highest quality wildlife habitat in the state and is home to thirteen species of plants and animals of greatest conservation concern in NH. As part of a five-state conservation planning effort, NH Fish and Game Department (“NHFG”) has monitored and trapped Blanding’s turtles in the Spruce Swamp area and distinguishes this area as a part of the “top 10 sites” for Blanding’s turtles. This location is important for spotted turtles, wood frogs, and spotted salamanders as well.
4. The Committee recommends a partial award of \$100,000 to Trout Unlimited for the Thompson Brook Fish Passage Project. The funds will be used for a culvert replacement consisting of a precast concrete bridge structure with open bottom design that will restore full stream connectivity, allow stream bed restoration and restore fish passage on 1.17 miles of Thompson Brook. Thompson Brook is a lower tributary of the Winnicut River, the only free flowing major tributary of the Great Bay estuary. The existing state owned road crossing culvert is undersized and perched, blocking fish passage on Thompson Brook. The tributary has been shown to harbor young of the year brook trout, a species of concern in the NHFG *Wildlife Action Plan* (“WAP”). Successful completion of the project will provide spawning and rearing habitat, not only for brook trout but for diadromous species of concern including river herring (both blueback and alewife), American eel and sea lamprey that are identified as a priority species in the WAP. The Thompson Brook culvert at Winnicut Road was identified in that Nature Conservancy study, “Assessment of Road Crossings for Improving Migratory Fish Passage in the Winnicut River Watershed” as the top priority culvert to correct based on proximity to tidal water and available upstream habitat. Additionally, this project directly addresses several high priority action plans in the Piscataqua Region Estuaries Partnership’s (a National Estuary Program for the Great Bay and Hampton-Seabrook estuaries) Comprehensive Conservation Management Plan of 2010. It should be noted that this project successfully applied for and received ARM funding in 2012. Unfortunately, the loss of federal funding opportunities of the past several years delayed full funding of this project and required resubmission of the project application.

#### **Merrimack River Service Area:**

1. The amount of \$75,000 was recommended by the Committee for Bear-Paw Regional Greenways (“Bear-Paw”) to acquire six parcels from Manchester Sand and Gravel for the conservation of 218 acres of land in Hooksett. Bear-Paw will own the parcels with a conservation easement held by NHFG. More than 12,000 acres of this unfragmented area have already been protected by Bear Brook State Park (10,000+ acres), Manchester Water Works (1,100+ acres), the Town of Hooksett Clay Pond Properties (703 acres), Bear-Paw Regional Greenways (the Hinman Pond Preserve 471 acres, the

Buxton parcels 105 acres, and the Pinkney Hill Preserve 175 acres), and other smaller conservation properties. The entire 218-acre property lies within a conservation focus area identified in the 2010 NH WAP that is more than 18,000 acres in size and is recognized as a priority in the 2010 NH WAP, Bear-Paw's Conservation Plan, and Hooksett's Master Plan. It is also part of a conservation area identified in the Blanding's Turtle Regional Conservation Plan. The property contains 21 wetland complexes totaling 25 acres. They range in size from 0.02 acre vernal pools to a ten acre beaver flowage. The majority of the wetland complexes are associated with depression systems and forested drainage ways. Nine vernal pools were identified throughout the site; however, NHFG has identified other potential vernal pools that may be productive in wetter years.

2. The Committee recommends providing \$197,707 for the Lakes Region Conservation Trust to permanently protect approximately 86 acres of land located on Guinea Ridge Road in Gilmanton. The parcel is located within the focus area of the Belknap Range Conservation Coalition ("BRCC"). The LRCT proposes to use the requested fees to purchase this parcel from the private landowner for the parcel to be held by LRCT in fee ownership. This project will protect at least 21 acres of wetlands and 65 acres of upland along a significant wetland and perennial stream resource located in the BRCC Focus Area. The perennial stream and associated wetland habitats are identified in the 2010 WAP as having the Highest Ranked Habitat in the state. Approximately 3,600 linear feet of perennial stream buffers will be protected as well as upland buffers along the stream and complex of wetlands. Wood turtles are documented in the vicinity of the property. The 2004 Gilmanton Natural Resource Inventory calls out the wetland complex as "significant" and important to protect for water quality, flood control and wildlife habitat. The property has abundant road frontage across five separately held parcels with good views of the Belknap Mountain Range, making it an attractive piece for potential development and thus a potential threat to the conservation values of these properties and the overall goals of the BRCC. Protecting the parcel contributes to connections between lands that are not protected and protects over-land connections between a wetland that is part of a large system that covers 91.6 acres and includes a perennial stream that is one of the headwater tributaries to the Suncook River and one 10-acre island.
3. An award of \$150,000 to the Society for the Protection of New Hampshire Forests ("Forests Society") was recommended by the Committee to permanently protect the Shost Property in Goffstown. The parcel is an undeveloped 177-acre property and the funds will go to the bargain purchase of a conservation easement. The Forest Society is working in partnership with the Goffstown Conservation Commission to protect important wetland and stream buffers, vernal pools, and approximately 16.9 acres of active open fields for hay production and wildlife habitat, and about 147 acres of managed, working forests. The property is a conservation priority for the Town as it contains several wetlands and is 97% Tier 1 highest quality wildlife habitat according to NHFG WAP. The property includes one large, 22-acre open wetland complex that was designated as prime in 2005, several smaller forested wetlands, at least three vernal pools, and an unnamed perennial stream which drains south to the Piscataquog River and then to the Merrimack River. The property has potential habitat for Blanding's turtles, spotted turtles, hognose snake, and black racers. The land also ranks highly on the new *Merrimack Valley Regional Conservation Plan (2013)*. In addition, the land is located near a number of existing conservation lands and several new parcels are under active discussions at this time. The Shost property has 1,275 feet of frontage along Snook Road and could easily be subdivided.

The remaining funds for this service area will be advertised in the 2015 grant round.

#### **Lower Connecticut River Service Area:**

1. The Committee recommends an award of \$115,000 to the Cheshire County Conservation District to improve aquatic organism passage, particularly for brook trout, in the Falls Brook culvert located on

Hale Hill Road in Swanzey. The deficient culvert is two and one quarter miles upstream of the confluence with the Ashuelot River. Brook trout are listed as a “species of concern” in NHFG WAP. In 2011, the Ashuelot River Stream Crossing Improvement Project prioritized stream restoration locations in the Ashuelot River Watershed with an overarching goal of reconnecting 15 miles of upstream habitat and spawning grounds for brook trout and other aquatic organisms. Falls Brook sub-watershed was identified as the second highest priority sub-watershed due to the amount of high quality cold water headwaters habitat throughout this stream network. The project proposes to restore aquatic connectivity within the drainage area whereby reducing ongoing erosional impacts driven by above average stream flows from more frequent and intense precipitation events. The majority of Falls Brook consists of excellent brook trout thermal refugia and spawning habitat. The keystone culvert on Hale Hill Road in Swanzey was classed as a severe barrier and, if restored, would open over ten miles of upstream habitat and greater than 20 miles of interconnected habitat within the downstream river network. The anticipated restoration will replace an undersized culvert, potentially hazardous to community infrastructure and stream geomorphology during extreme storm events, will be removed whereby protecting the long term viability of local wetlands. The new structure will be a steel stringer bridge design allowing for full passage of all organisms as well as the stream flows related to the one hundred year storm event. This restoration will restore full hydraulic functionality within the stream channel enhancing a broad range of eco-system services throughout Falls Brook.

2. The Committee recommends providing \$140,000 to the Monadnock Conservancy for the acquisition of two conservation easements on the 552-acre West Hill Property in Keene, Swanzey & Chesterfield. These easements will protect: 25.8 acres of wetland; 526.2 acres of upland; approximately 16,850 feet of streams; 13 potential vernal pools; and 3 known vernal pools. The protection of the West Hill property is part of a much larger effort by the Monadnock Conservancy to protect the entire California Brook Natural Area (“CBNA”). The CBNA is within the largest remaining unfragmented forest block of land (28,223 acres) and has been identified as a priority for conservation by the City of Keene and the Towns of Chesterfield & Swanzey. Tier I wildlife habitat, as defined by the NHFG WAP is present on 98% of this 552-acre property. There are also 0.9 acres of Tier 2 wildlife habitat and 3.1 acres of Supporting Landscape. The NH Natural Heritage Bureau has indicated American ginseng (*Panax quinquefolius*) to be present on the parcel and a red maple-black ash swamp has been identified on the property. During the site visit, a rare plant species, Northeastern bulrush (*Scirpus ancistrochaetus*) was found on the property, which is a new record of a species listed as endangered by the US Fish and Wildlife Service. The conservation easement on the larger tract will allow for forest management and include a 100 linear foot riparian buffer in order to protect the aquatic resources. The conservation easement on the smaller tract will contain “forever wild” provisions and not allow for timber management. The West Hill property consists of six wetlands that provide shoreline stabilization for streams and ponds, four perennial streams associated with the wetlands (including a beaver pond) that provide fish and aquatic habitat, with all of these streams flowing into the Ashuelot River.
3. The Committee discussed the third proposal in the Lower Connecticut River area that involved Trout Unlimited constructing a portion of a stream from Andorra Pond to Robinson Brook. The Committee withholds a recommendation at this time in order to discuss several questions with the applicant. A recommendation on this project will be presented to the Council at a later date.

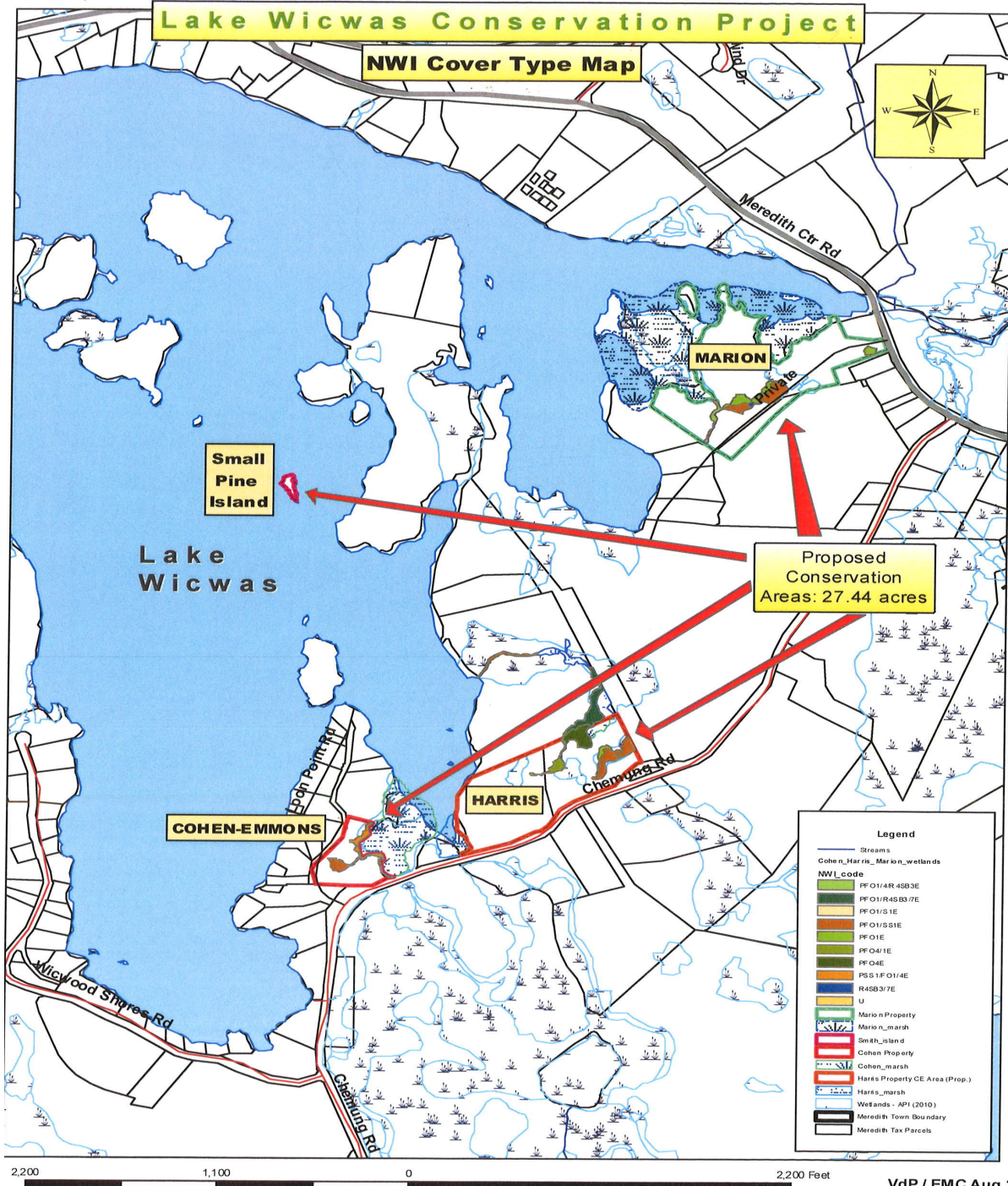
The remaining funds for this service area, after a decision is made on the Andorra Pond project, will be advertised in the 2015 grant round.

## APPENDIX A

### Location maps for 2014 ARM Fund Applications

#### Pemigewasset – Winnepesaukee Rivers Service Area:

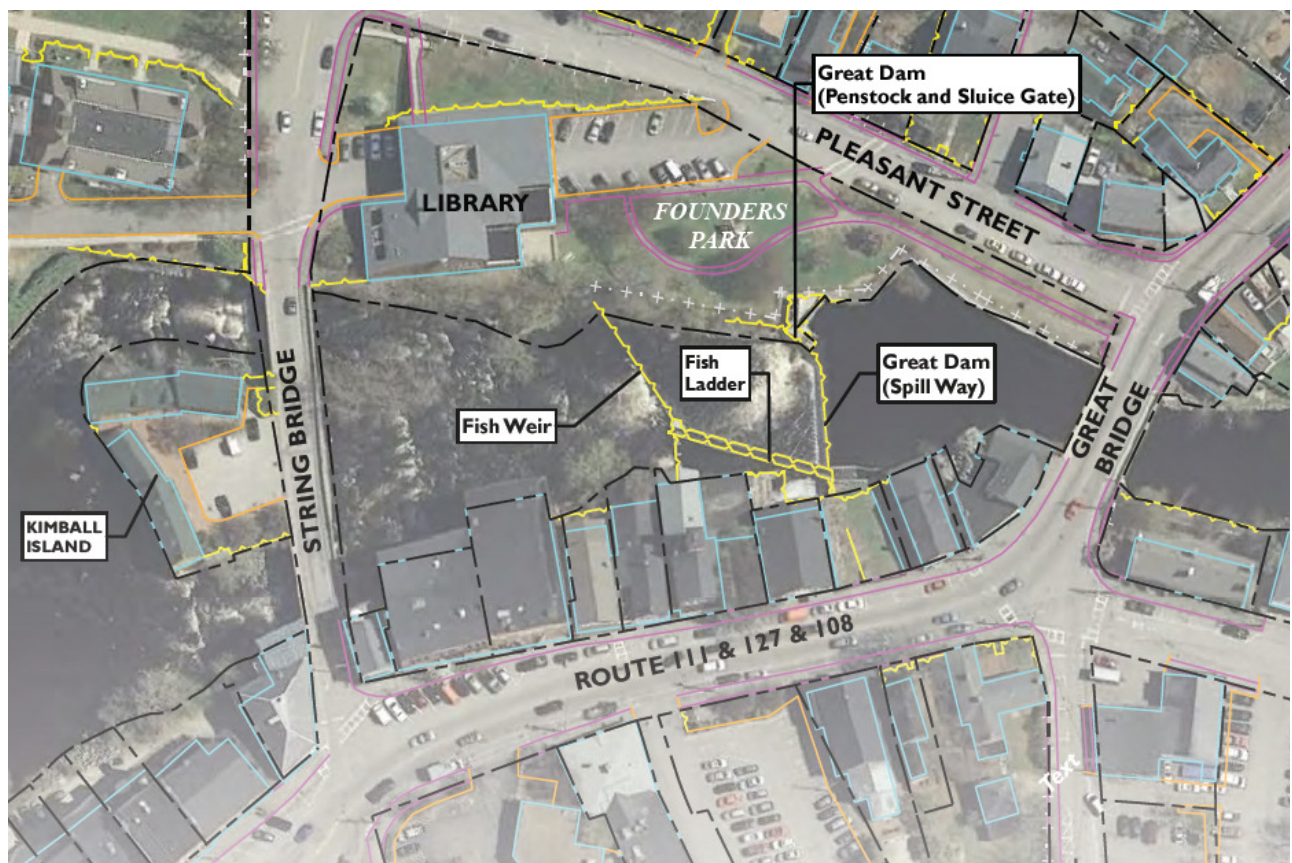
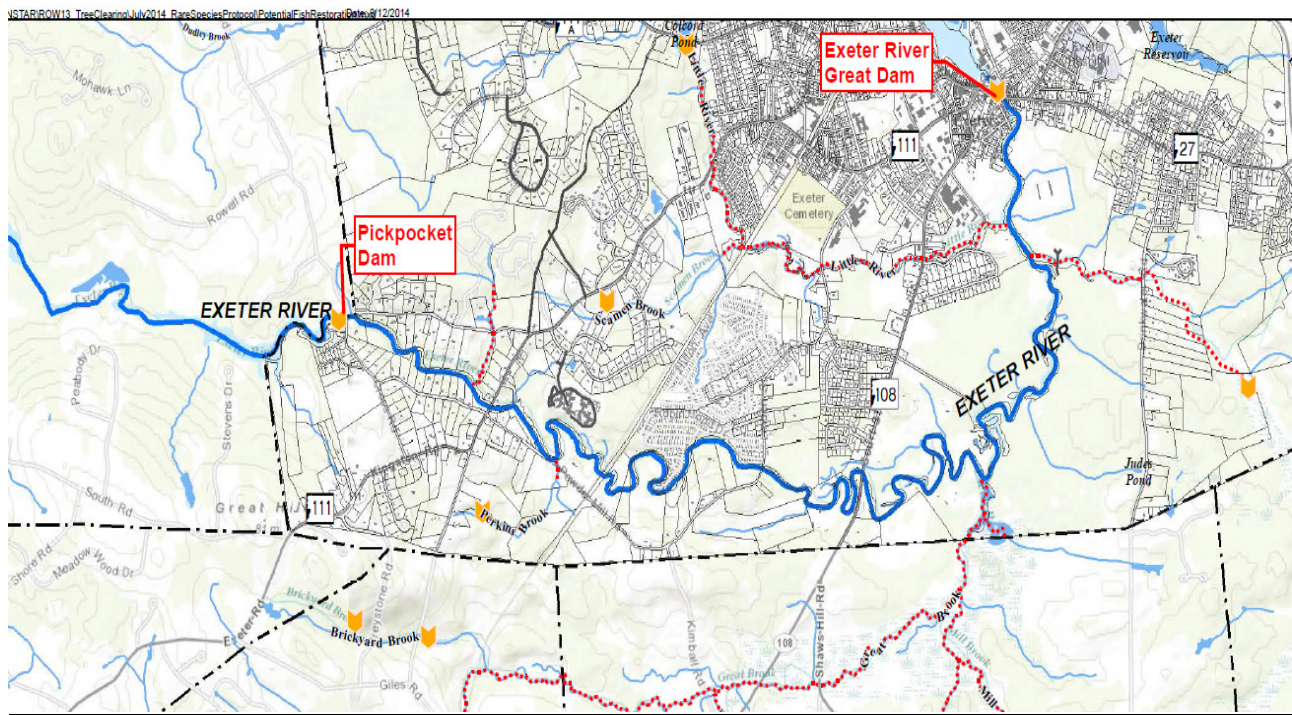
#### Lake Wicwas Conservation Project, Meredith





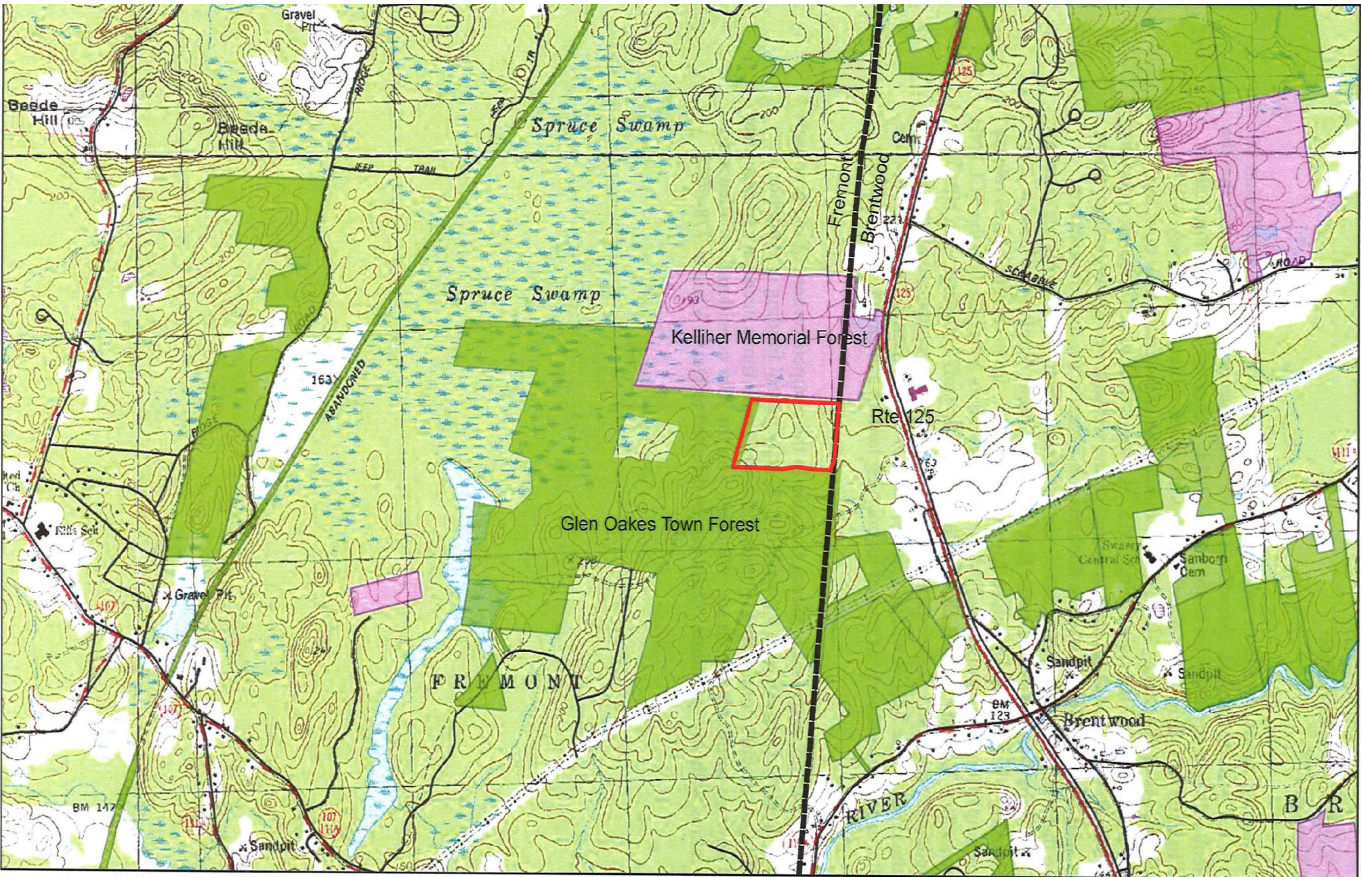
**Salmon Falls – Piscataqua Rivers Service Area:****Berry's Brook Wetland Conservation Project/Rand Parcel, Rye**



**Exeter Great Dam Removal Project, Exeter**



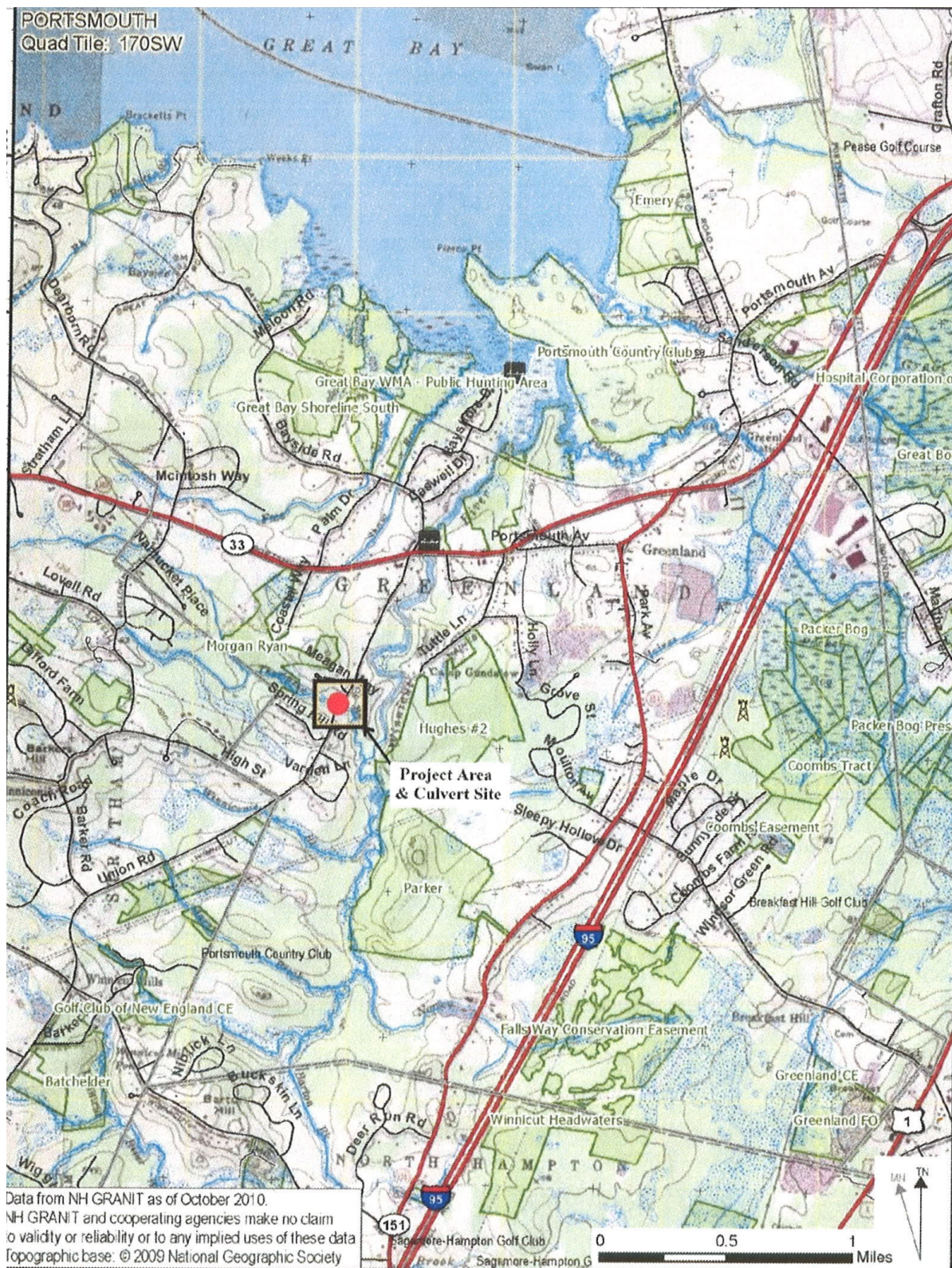
**Spruce Swamp: Kelliher Forest Addition, Fremont and Brentwood**



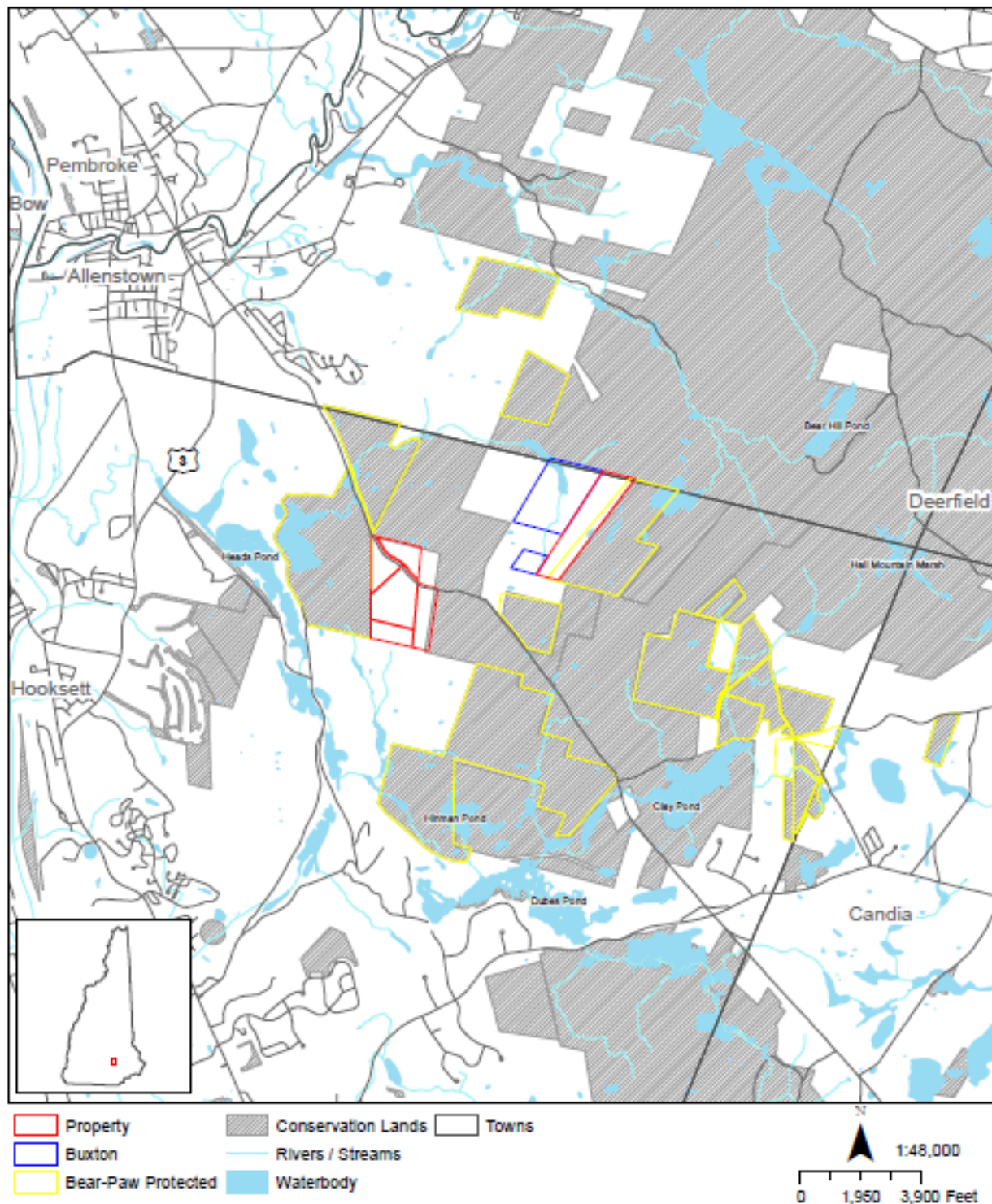
**Appendix 1: USGS Topographic Map**  
**Spruce Swamp: Kelliher Forest Addition**  
Fremont, Brentwood, NH

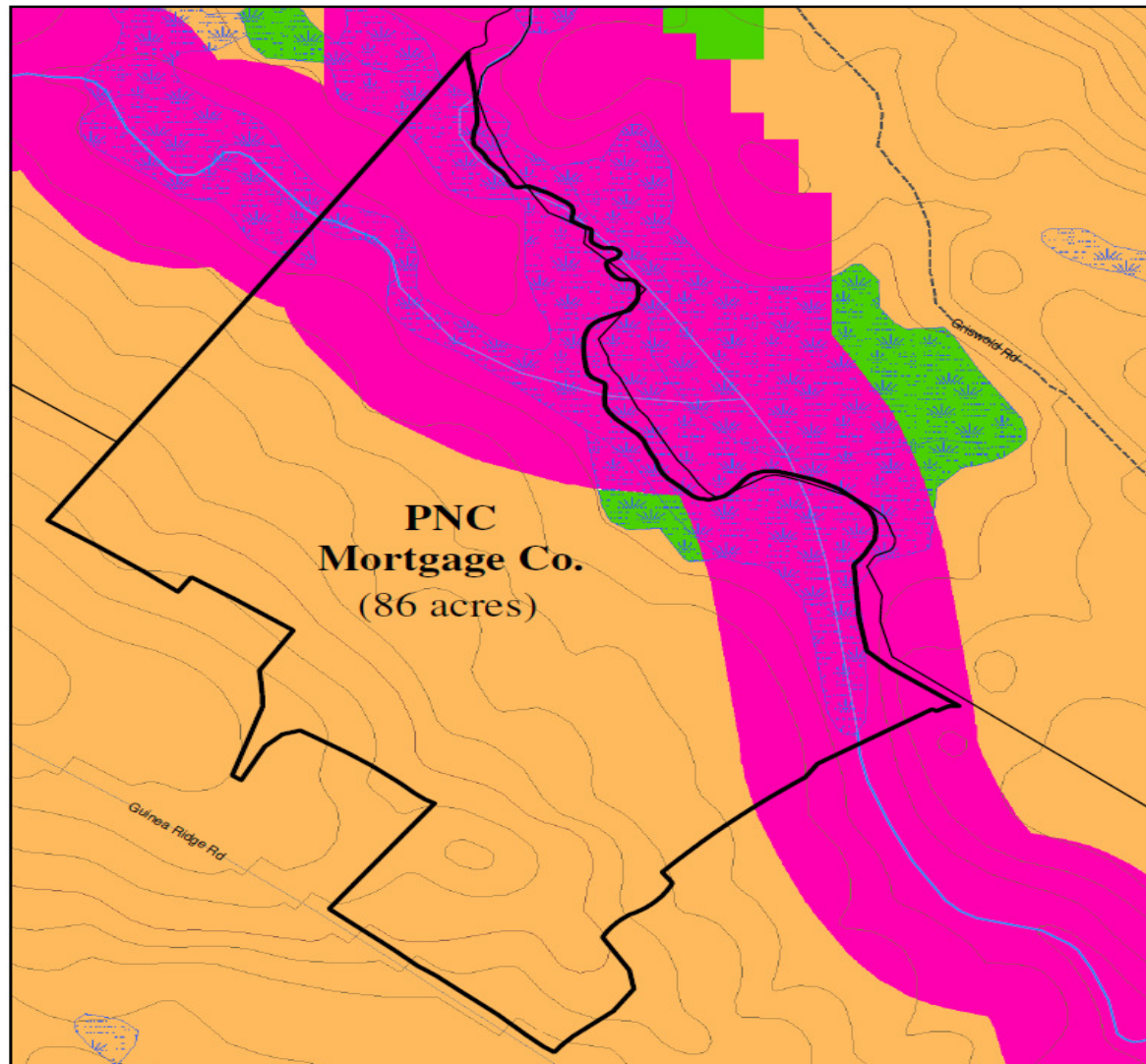
Legend:  
[Red Outline] Target Parcel  
[Pink] SELTNH Conservation Land  
[Green] Other Conservation Land



**Thompson Brook Fish Passage Project, Greenland**



**Merrimack River Service Area:****Hinman Pond II, Hooksett****Hinman Pond II Properties, Hooksett - Locus Map**

**Guinea Ridge Road Project, Gilmanton****Legend**

PNC Mortgage Co. Parcel

**WAP Tiers**

Highest Ranked Habitat in NH

Highest Ranked Habitat in Biological Region

Supporting Landscapes

Lakes and Ponds

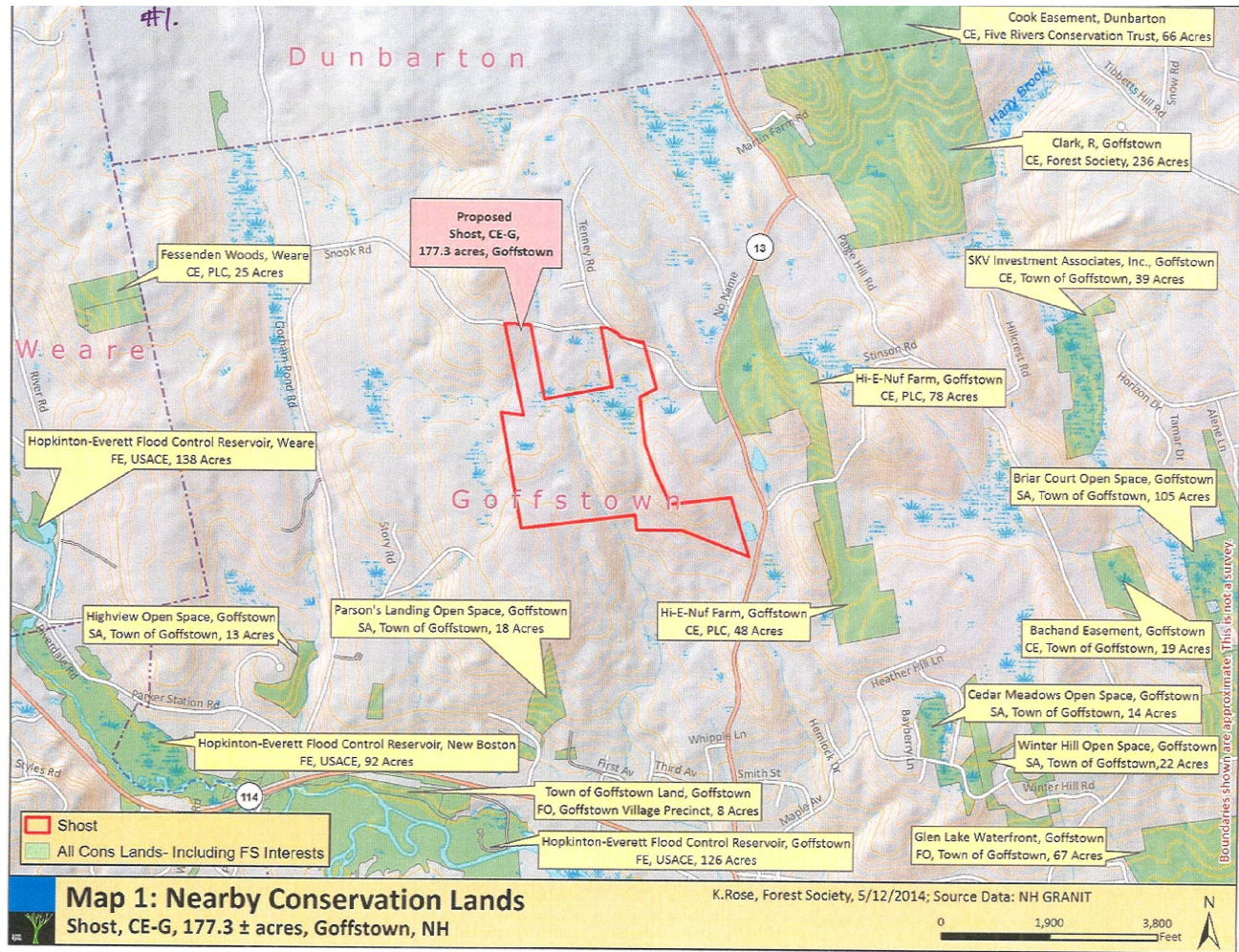
River/Stream

Wetlands

Town Boundary

Contour Interval - 20 ft.

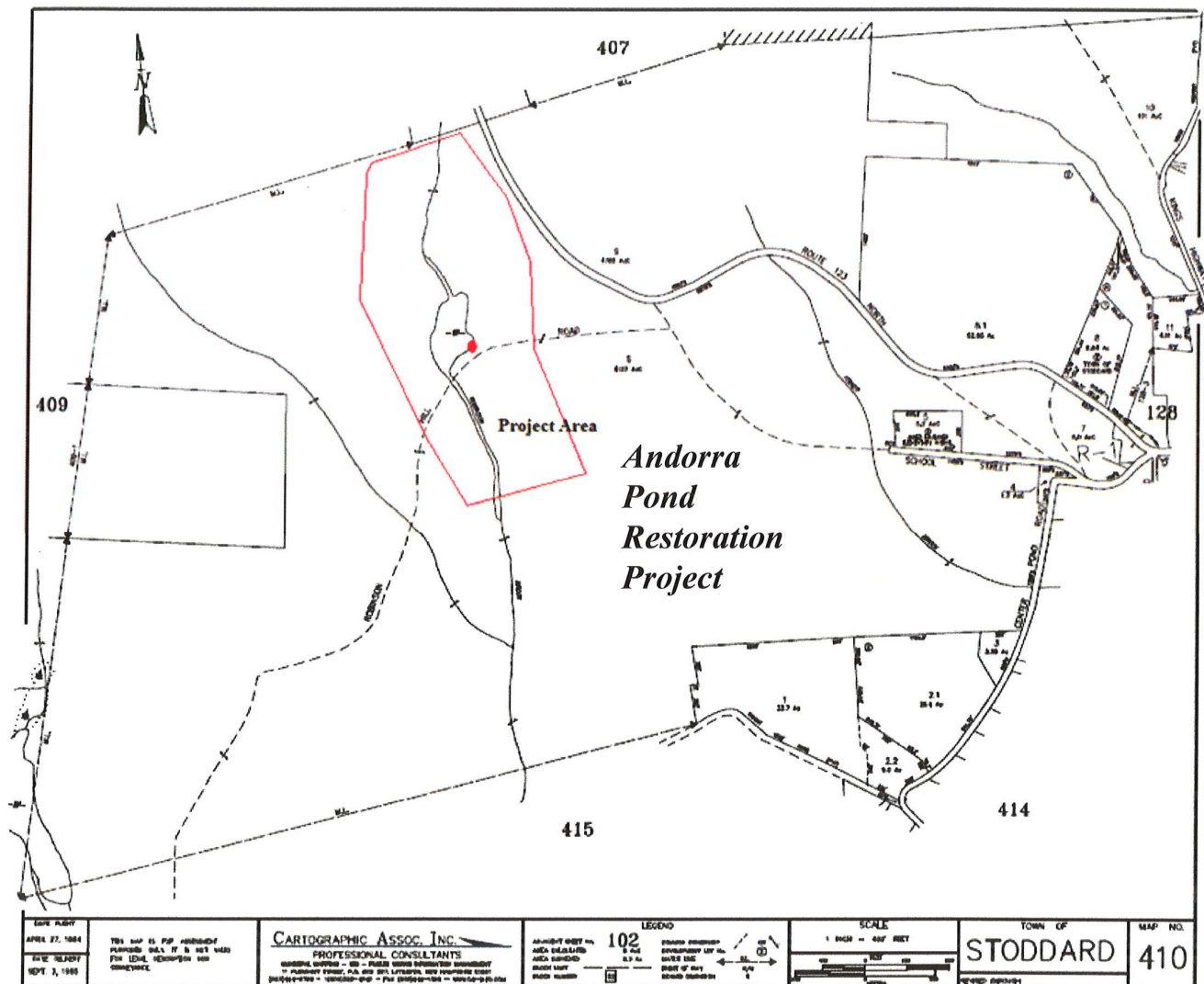


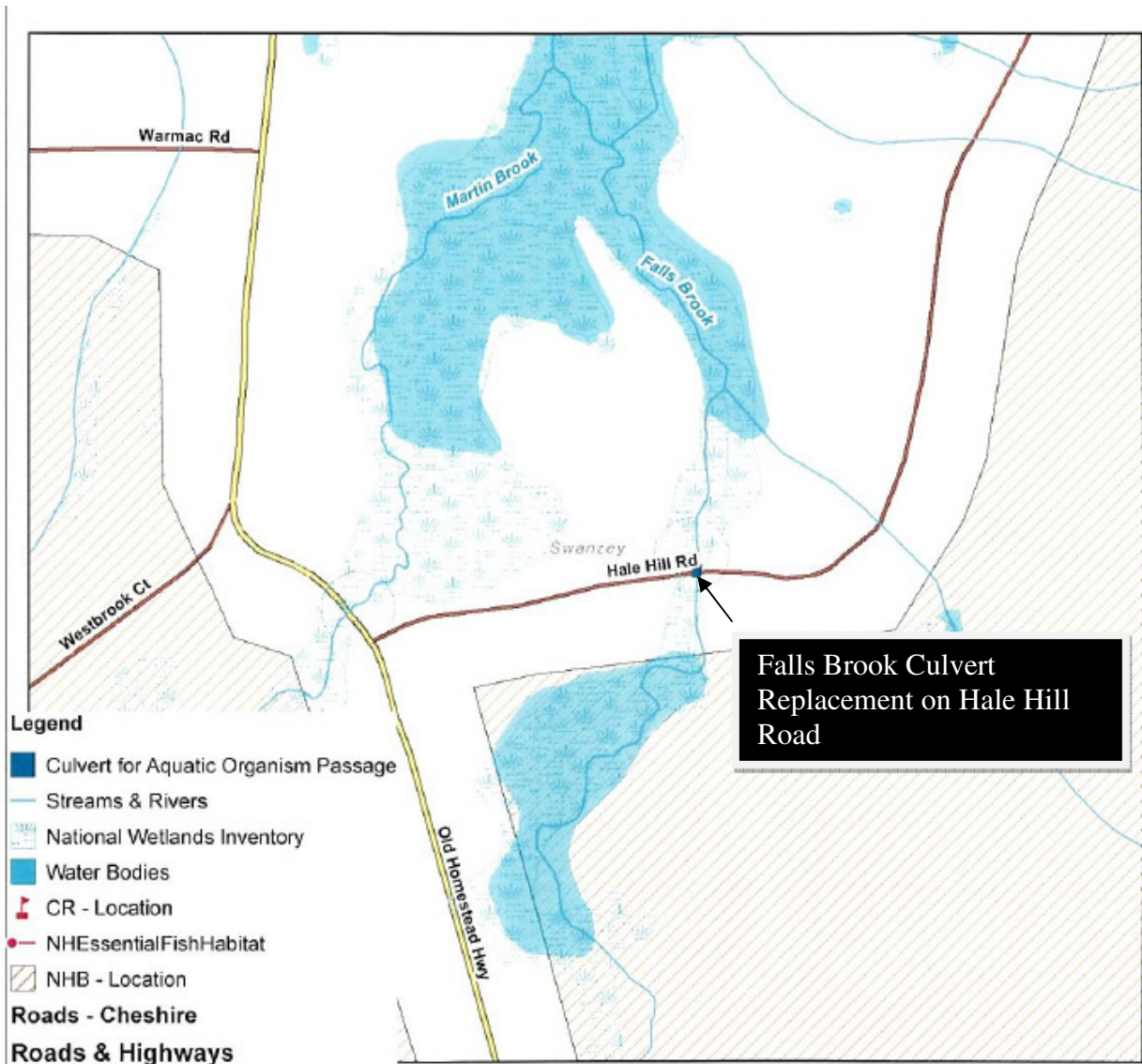
**Shost Conservation Project, Goffstown**



### Andorra Pond Restoration, Stoddard

Tax Parcel Map; Entire property is owned by Andorra Forest.



**Falls Brook Restoration, Swanzey**



## West Hill – California Brook, Keene/Swanzey/Chesterfield

